TECHNICAL SPECIFICATIONS

PROJECT MANUAL – 3 of 3

For

Ojai Permanent Supportive Housing

611 South Montgomery Street, Ojai, CA., 93023

Permit Set Documents.

Date: 11.07.2025

Prepared For:

Dignity Moves Under City of Ojai

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SECTION 00 01 10

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SOLID
Soils & Geologic Consultants
solidsoils.com; (805) 202-6533

November 21, 2024
SS-502-S

City of Ojai
c/o Bryan Schurmer
bryan.schurmer@ojai.ca.gov

Subject: **SOILS ENGINEERING REPORT**
Proposed Residential Development, 30 Proposed Tiny Homes & 2 Proposed Accessory Structures, North of South Ventura Street & South Montgomery Street Intersection, APN: 023012002, Ojai, California

Dear Bryan:

Introduction

The following report summarizes the findings of our Soils Engineering Investigation performed on the subject property. Our purpose was to evaluate the distribution and engineering characteristics of the earth materials present on the site so that we might assess their impact upon the 30 proposed tiny homes and two proposed accessory structures.

It is the intent of this report to aid in the design and completion of the proposed work and to reduce certain risks associated with construction projects. This report is prepared for the use of the client and authorized agents and should not be considered transferable. Prior to use by others, the site and this report should be reviewed by *Solid Soils & Geologic Consultants*. Following review, additional work may be required to update this report.

The scope of work for this project included: 1) a reconnaissance of the site and its immediate vicinity, 2) logging and sampling of 4 backhoe test pits, 3) select laboratory testing of the retrieved samples, 4) soils engineering analysis of the assembled data, and 5) preparation of this report. Field data and the approximate locations of the exploratory excavations are shown on the enclosed Plot Plan. Descriptions of the materials encountered in the exploratory excavations are provided on the enclosed logs (Plates TP-1 through TP-4). Pertinent laboratory test results are provided in this report.

Site Location & Description

The subject property does not have a physical address. The property is located approximately 300 to 600 feet north of South Ventura Street and South Montgomery Street intersection in Ojai, California. The approximate site location is shown on the enclosed Vicinity Maps and Site Plan.

The subject property consists of relatively level to moderately sloping undeveloped lot that is currently used as a city maintenance yard. A large stockpile of soil, up to approximately 6 feet high, is located near the southwestern portion of the property. Drainage on the property flows gently to the southeast.

The site is not located within a state mapped seismic hazard zone for potential seismically induced landslides or liquefaction nor is the site located within a state mapped Alquist-Priolo active fault zone.

Proposed Development

Based on the information provided by you, it is proposed to construct 30 single-story tiny homes and two accessory structures near the southern approximate half of the property. See enclosed Plot Plan for the preliminary locations of the proposed structures, property lines, etc. Grading will be limited to site preparation. The large stockpile of soil located near the southwestern portion of the property will need to be removed before site grading is performed. This information was the basis for the field exploration.

Exploration Observations

The scope of our exploration was based on our understanding of the project, as described above. The site was explored on October 23, 2024 with the aid of a backhoe and field mapping. A total of 4 backhoe test pits were excavated to depths of 5½ to 6½ feet below existing grade. The excavations were backfilled and tamped, but may not be compacted.

The earth materials encountered included artificial fill over older alluvium. The artificial fill was up to 5½ feet thick and contained abundant trash (pipes, concrete, asphalt, manhole cover, etc.). A summary of the earth materials is provided in the enclosures. The excavations are logged on Plates TP-1 through TP-4 and their locations are shown on the enclosed Plot Plan.

Groundwater was not encountered in our subsurface excavations. Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site.

Seismicity

The subject site has no known active or potentially active faults crossing the property. An "active fault" is one that has had movement in the last 11,000 years. The site is not located within an Alquist-Priolo Earthquake Fault Zone. An Alquist-Priolo Earthquake Fault Zone is the area designated by the State of California as being the zone where primary ground rupture is considered most likely to occur during a seismic event on the fault.

Earthquake epicenters may happen anywhere in Southern California along thrust faults or buried faults, as has been evidenced by several recent historic earthquakes, including the Whittier Narrows Earthquake and the Northridge Earthquake. The proximity of a site to the surface trace of a fault may have little relationship to the potential of being near an earthquake epicenter.

The property is situated within the seismically active Southern California region and therefore will be subject to moderate to strong ground shaking should one of the many active Southern California faults produce an earthquake. It is likely that at least one significant seismic event will affect the site during the lifetime of the structures. Secondary effects, such as earthquake-induced landsliding or ground rupture are not considered likely to occur. However, severe ground shaking may cause some consolidation and settlement of the underlying soils. Soil parameters for current seismic design are provided in the enclosures.

Laboratory Work Performed

Bulk and relatively undisturbed samples of earth materials were collected from the test pits excavated at the site. Select samples were taken to the laboratory for appropriate testing and analysis. Laboratory tests performed on the retrieved samples are described below.

Moisture & Dry Density Tests

The field moisture content and field dry density were determined for each undisturbed sample. The dry density is given in pounds per cubic foot (pcf) and the moisture content represents a percentage of the dry density. This test data is presented below on Table A.

Expansion Index Test

An expansion index test was performed in accordance with UBC Standard 29-2 or equivalent. The result of this test is included below on Table A.

Shear Tests

Shear tests were performed in a Direct Shear Machine of the strain control type. The rate of deformation was approximately 0.025 inches per minute. Shearing occurred under a variety of confining loads in order to determine the Coulomb shear strength parameters. The tests were performed on remolded (at 90% relative compaction) samples in an artificially flooded condition. The test results are presented graphically in the enclosures on Plate S-1.

Consolidation Tests

Predictions of the soil's settlement characteristics under load were made on the basis of consolidation tests. A one-inch high sample was loaded in a geometric progression of increasing normal loads and the resulting deformation recorded at selected time intervals. Porous stones were placed in contact with the sample (top and bottom) to permit addition and release of pore fluid. The

sample was flooded with clean water at a selected load during the progression. Results are plotted on the enclosed Consolidation-Pressure Curves, Plates C-1 and C-2.

TABLE A
Laboratory Test Results

Sample Location	Depth (ft)	Field Dry Density (pcf)	Field Moisture Content (%)	Expansion Index
Composite	0-5			52
TP-1	5	115.3	6.6	
TP-2	5	107.8	12.3	

Discussion & Recommendations

The following discussion and recommendations are based on the data presented in this report and our understanding of the project. Recommendations, derived from the data available at this time, are presented for your consideration.

Based upon the exploration performed for this investigation, it is our finding that construction of the 30 proposed tiny homes and two proposed accessory structures, as described, is feasible from a soils engineering standpoint, provided our advice and recommendations are made a part of the plans and are implemented during construction.

The surficial soils on the site are relatively soft and may be subject to consolidation and settlement upon loading. Therefore, it is recommended that the surficial soils be removed and compacted to a minimum depth of 3 feet below the bottom of the proposed foundations and to dense older alluvium. Dense older alluvium was located up to 5½ feet below existing grade in our subsurface excavations and may be deeper in areas not explored. The material above the older alluvium consists of incompetent fill with considerable trash. The trash should be removed from the site during grading. The fill bottoms may need to extend deeper in areas if soft spots or thicker fill are encountered. The fill bottom excavations should be scarified, watered or dried to near optimum moisture content, and compacted to 90% using the most recent version of ASTM D 1557 as the standard.

Compacted fill should also extend 5 feet beyond the perimeter of the proposed footings. The fill should be compacted to a minimum of 90% of the laboratory maximum dry density. This will

provide a dense, uniform bearing material and will distribute the loads more evenly upon the natural soils. Following proper removal and compaction of the soils, conventional continuous foundations may be used to support the 30 proposed tiny homes and two proposed accessory structures. Details are provided below for grading of compacted fills, foundation design, and other criteria, as considered warranted.

Setbacks

The California Building Code (CBC) requires a level rear yard setback between the toe of the ascending slope and the rear wall of the structure of one half the height of the slope to a maximum of 15 feet and a minimum of 3 feet for slopes steeper than 3:1. Where a retaining wall is constructed at the toe of the slope, the height of the slope shall be measured from the top of the wall to the top of slope (CBC 1808.7). For retained slopes, the face of the retaining wall is considered the toe of the slope. All walls near the toe of slope should be provided with slough protection and a paved swale that directs water around the pad to the street or approved drainage area. This should be done in a non-erosive device.

The CBC also requires a horizontal setback of one-third the height of a descending slope from the bottom of the footing to the slope face, with a minimum of 5 feet and a maximum of 40 feet.

Please note that the footings will need to be deepened on the south and east sides of the proposed structures in order to provide the required horizontal setbacks from the bottom of the footing to the descending slope face. The total depths depend on the final design. The total depths will be determined in the field during grading based on the final design plan.

Grading - Compacted Fills

The following recommendations are for the preparation and placement of compacted fills. The contractor should be aware that if grading is done during or following periods of rain, or if the ground moisture is over optimum from any source of water, such as excessive irrigation watering, etc., then a considerable amount of time and/or effort may be needed to achieve proper moisture for compaction purposes.

1. The on-site fill and older alluvium are suitable for use as structural fill. The trash located within the fill should be removed from the site during grading. Any imported materials that are to be used as fill should be approved by this office prior to placement.

2. All vegetation, trash, debris or other deleterious materials should be removed from the area to be graded and exported from the site. Rocks larger than 8 inches should not be included in the fill.

3. All existing fill and incompetent surface soils within the area to be filled should be removed to dense older alluvium and replaced as properly compacted fill. Dense older alluvium was located up to 5½ feet below existing grade in our subsurface excavations and may be deeper in areas not explored.

4. The foundations for the proposed structures should be provided with at least 3 feet of compacted fill beneath the base of proposed foundations. Final foundation plans should be given to the grader prior to starting work in order to determine the minimum depth of the excavation. The difference in the depth of the fill beneath a proposed structure should not exceed 5 feet. The fill should extend at least 5 feet beyond the edge of the footings or for a distance equal to the depth of the fill below the footings, whichever is deeper. The required vertical and lateral extent of the fill with respect to the location of the proposed structures should be verified by a licensed surveyor.

5. The excavated fill bottoms should expose dense older alluvium, per our recommendations. The bottoms may need to extend deeper in areas if soft spots are encountered. Our office will determine this during fill bottom observations. The fill bottom excavations should be scarified, watered or dried to near optimum moisture content, and compacted to 90% using the most recent version of ASTM D 1557 as the standard. All bottom excavations should be observed by a representative of our office prior to placement of fill.

6. Fill should be placed in 6 to 8-inch lifts, watered to near optimum moisture content, and compacted to at least 90% of the material's maximum dry density, using the latest version of ASTM D 1557 as the standard, prior to placement of the next lift. All fill should be placed under the observation and testing of *Solid Soils & Geologic Consultants* to assist the contractor in achieving proper compaction.

7. Approved fill material that is expansive should be placed slightly above optimum moisture. This will help reduce the detrimental affects of expansion and swelling.

8. All grading should comply with the grading specifications and the requirements of the local governing agency.

9. It is anticipated that some shrinkage of the material will occur from the compaction process.

Spread Footings

Continuous spread footings may be used to support the proposed structures provided that they are founded entirely in future compacted fill. Footings may not be supported by two dissimilar materials such as fill and older alluvium. Continuous footings should be a minimum of 15 inches in width. Foundation design parameters are outlined on the following chart. Final foundation design parameters will be provided at the completion of rough grading based on the expansive properties of the near-pad-grade fill. The structural engineer will ultimately decide the total depths and widths of the footings based on loads, etc. The footing depths and widths provided are the minimums.

Bearing Material	Minimum Depth into Bearing Material (Inches)	Vertical Bearing (psf)	Coefficient of Friction	Passive Earth Pressure (pcf)	Maximum Earth Pressure (psf)
Future Compacted Fill	*21	1,500	0.30	200	1,500

***The footings will need to be deepened on the south and east sides of the proposed structures in order to provide the required horizontal setbacks from the bottom of the footing to the descending slope face. The total depths depend on the final design. The total depths will be determined in the field during grading based on the final design plan.**

The allowable soil strength parameters indicated above are for the total of dead and frequently applied live loads and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. For the purpose of bearing calculations, the weight of the concrete in the footing may be neglected.

All continuous footings should be reinforced with a minimum of four #4 steel bars, two placed near the top and two placed near the bottom of the footings. Additional steel should be placed in footing excavations greater than 30 inches deep. Footing excavations should be cleaned of all debris, loose soil, moistened, and free of shrinkage cracks prior to placing concrete. Observation of the footing excavations should be performed by *Solid Soils & Geologic Consultants* prior to placing forms, steel or concrete to verify the proper depths. All work and materials should comply with the specifications of the building official.

Floor Slabs

The recommended material to support the proposed floor slabs is future compacted fill. Following proper removal and compaction (as described above) slabs may be supported on the compacted fill. All footing excavation spoils and debris should be removed from the area. Floor slabs should be a minimum of 4 inches thick and should be cast over a clean, firm subgrade and reinforced with a minimum of #4 steel bars spaced 16 inches on center, both ways. The rebar should be bent in an "L" fashion and extend a minimum of 12 inches into the adjacent foundations. Care should be taken to cast the reinforcement near the center of the slab. Slabs should be provided with a bed of 4 inches of clean dry granular material beneath the concrete.

All slabs should be protected with a vapor retarder at least 10 mil thick, beneath them. The vapor retarder should conform to ASTM E1745 and have a permeance of less than 0.3 US perms (0.2 metric perms). The vapor retarder should be underlain by a 2-inch thick layer of clean dry granular material. Installation of the vapor retarder should conform to the recommendations of ACI 302.2R.

Foundation Settlement

Settlement of the foundation system is expected to occur on initial application of loading. Anticipated differential settlement for properly supported foundations should be on the order of ½ to 1 inch over the length of 40 feet. Total settlement is not expected to exceed approximately 1 inch.

Temporary Excavations

A vertical cut of up to 5 feet may be made in the on-site materials. Excavations greater than 5 feet should be trimmed back to 1½:1 (horizontal to vertical). Our office should observe all initial excavations and may need to provide alternative recommendations to those provided herein, such as shoring or slot cutting, if considerable caving is observed.

A representative of *Solid Soils & Geologic Consultants* should be present during grading to observe the performance of temporary slopes and excavations. All excavations should be properly fenced off (or other appropriate method) for safety and should be stabilized within 30 days of the initial excavation. Water should not be allowed to pond near the top of the excavations nor flow towards them. No vehicles should be allowed within 7 feet of a cut.

Drainage

Positive control of surface water should be established. Irrigation water should not enter the development area. Roof gutters and downspouts should be provided to collect all roof water. Downspouts should deposit the water into a buried drain or paved swale. Downspouts should not direct water onto the soil next to the foundations. Pad and roof drainage should be collected and

transferred to the street or approved drainage system in non-erosive drainage devices. Water should be directed away from foundations. Drainage should not be allowed to pond on the pad, under the building, against any foundations, or behind walls. A minimum of 2% (2 vertical per 100 horizontal) drainage should be provided in all areas. A 5% slope should be considered for non-paved areas in the vicinity of the structures. The 5% zone should be at least seven feet wide, where possible. Fine-grade fills placed to create pad drainage should be compacted in order to retard infiltration of surface water.

Crawl spaces for raised floors, which are below the adjacent grade, should be graded for drainage per the above recommendations. All water should be collected by an area drain or other appropriate device, and transported to the drain system in a solid pipe. This should be shown on the appropriate plans.

Preserving proper surface drainage is also important. Planters, decorative walls, plants, trees or accumulations of organic matter should not be allowed to retard surface drainage or clog drains. Area drains and roof gutters should be kept free of obstructions. Roof gutters and condensation lines from air conditioners should outlet to area drains or paved areas which conduct the water to the street. Positive drainage along the backs of walls should be maintained. Any other measures that will facilitate positive surface drainage should be employed. Long-term saturation of the soils or subsurface may adversely affect structure foundations, slabs, patios, sidewalks and other rigid surfaces. The property owner and gardener should be reminded of the need to preserve proper drainage.

Vegetation and Irrigation

The landscaping process should aid in abating erosion. Care should be taken not to over-irrigate the property. Watering patterns should be modified to reflect rainy periods. The irrigation system should be checked on a regular basis for leakage. All leaks should be repaired immediately. Irrigation water should be applied only to the minimum extent needed to support plant life. A good source of information is your local city or county agency, the "Sunset New Western Garden" book, or similar publications.

Planter boxes adjacent to building foundations should either be avoided or appropriately sealed so that the irrigation water does not impact the foundations. Sealing may be accomplished by constructing the planters with a solid base and sidewall weep holes (exiting on side away from the building), or by providing a cutoff wall adjacent to the foundations. Cutoff walls should be at least 6 inches thick and extend at least 30 inches below the grade.

Control of irrigation water is a necessary part of site maintenance. Soggy ground, perched water, seeps and/or water damage may result if irrigation water is excessively or improperly applied. All irrigation systems should be adjusted to provide the minimum water needed to sustain landscaping. Adjustments should be made for changes of the seasons. Irrigation should stop when sufficient water is provided by precipitation. Broken, leaking, or plugged sprinklers or irrigation lines should be repaired immediately. Frequent inspections of the irrigation systems should be performed. The property owner and gardener should be reminded of the need to properly irrigate the property and the potential damage that may occur from irresponsible watering.

Utility Trench Backfill

Backfill for utility trench excavations should be compacted to at least 90% relative compaction. The designer and contractor should be aware of the potential of backfill sand in utility trenches to act as a subdrain. Water can be collected in the utility trenches and transported considerable distances, often across property lines. Flooding of junction boxes or service laterals may result. Flooding of service laterals may cause water damage to the structures, including the interior of the structures. Appropriate measures should be taken in the design and construction phase to prevent such flooding.

Plan Review

Finalized plans should be submitted to *Solid Soils & Geologic Consultants* for comment and review. Additional recommendations may be provided at that time, if such are considered warranted. **A minimum of 48 hours should be allowed for the review of the plans.**

Construction Monitoring

Compliance with *Solid Soils & Geologic Consultant*s design concepts, specifications and recommendations during construction requires our review during the course of construction. All temporary excavations should be observed by a representative of *Solid Soils & Geologic Consultants* to verify that the anticipated conditions are present and that our recommendations have been implemented at the construction site. All fill bottom excavations should be observed prior to placement of fill. A representative of this office should monitor placement of all fill. Supplemental recommendations may prove warranted based upon the materials exposed in the actual excavations.

Foundation excavations should be observed by a representative of *Solid Soils & Geologic Consultants* to determine if the recommended depth into the proper bearing material has been achieved and that the site conditions are the same as those anticipated. Such observations should be made prior to placing concrete, steel or forms. Please notify our office at least 24 hours prior to a site visit. The approved plans and permits should be on the job site and available for our review.

General Conditions

In the event of any changes in the design or location of any structure, as outlined in this report, the conclusions and recommendations contained herein may not be considered valid. Any changes should be reviewed by *Solid Soils & Geologic Consultants* and our conclusions and recommendations modified or reaffirmed after such a review.

The subsurface conditions described herein have been projected from excavations on the site. They should in no way be construed to reflect any variations which may occur between these excavations or which may result from changes in subsurface conditions. If conditions encountered during construction appear to differ from those disclosed herein, notify *Solid Soils & Geologic Consultants* immediately so we may consider the need for modifications.

Exploration was performed on only a portion of the site. The findings for the study area cannot be considered as indicative of areas not explored. This report is made and issued for the sole use and benefit of the client and is not transferable. This report states conditions as of the date of the exploration. Any liability in connection herewith shall not exceed our fee for the exploration. No warranty, expressed or implied, is made or intended in connection with the exploration, by the furnishing of this report, or by any other oral or written statement.

November 21, 2024
SS-502-S

Thank you for this opportunity to be of service. If you have any questions regarding this report, please feel free to contact the undersigned at (805) 202-6533.

Respectfully submitted,
SOLID SOILS & GEOLOGIC CONSULTANTS

Jeff Sivas
C.E.G. 2565 expires 2/25

Shaun Simon
R.C.E. 82610 expires 10/26

Enclosures:
Site Plan
Vicinity Maps
Plot Plan
Test Pit Logs ..... Plates TP-1 through TP-4
Shear Test Results ..... Plate S-1
Consolidation Test Results ..... Plates C-1 & C-2
Seismic Parameters

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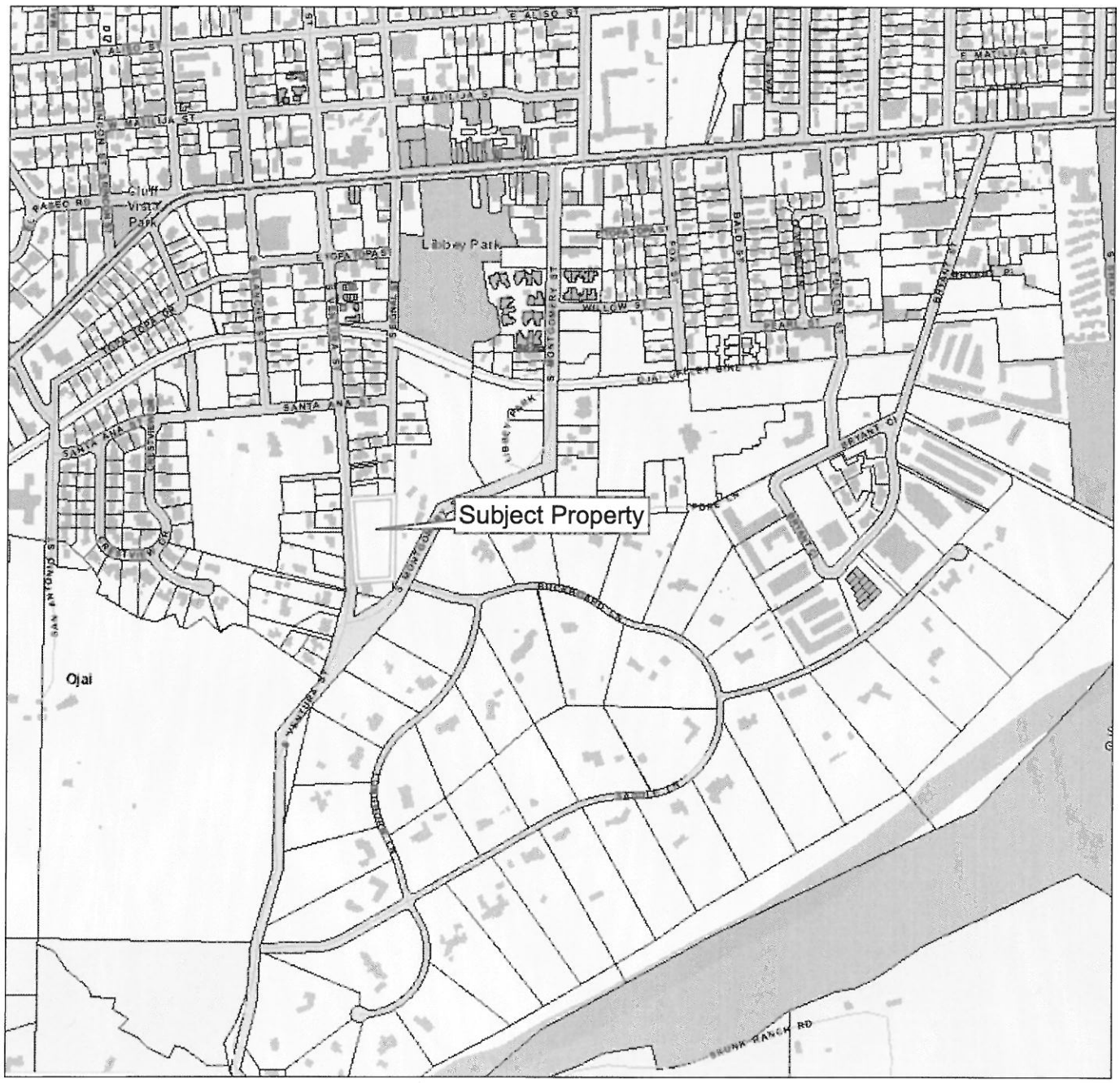
Subject: Site Plan	Client: City of Ojai
Reference: County View	Job #: SS-502-S
Scale: 1" = 750'	Date: 11/2024



N

0 750 1,500 Feet

Site Plan

1 Inch = 750 Feet

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Subject: Vicinity Map Reference: Google Maps Scale: 1" = 1000'	Client: City of Ojai Job #: SS-502-S Date: 11/2024

N

0 500 1,000 2,000 Feet

Vicinity Map

1 Inch = 1,000 Feet

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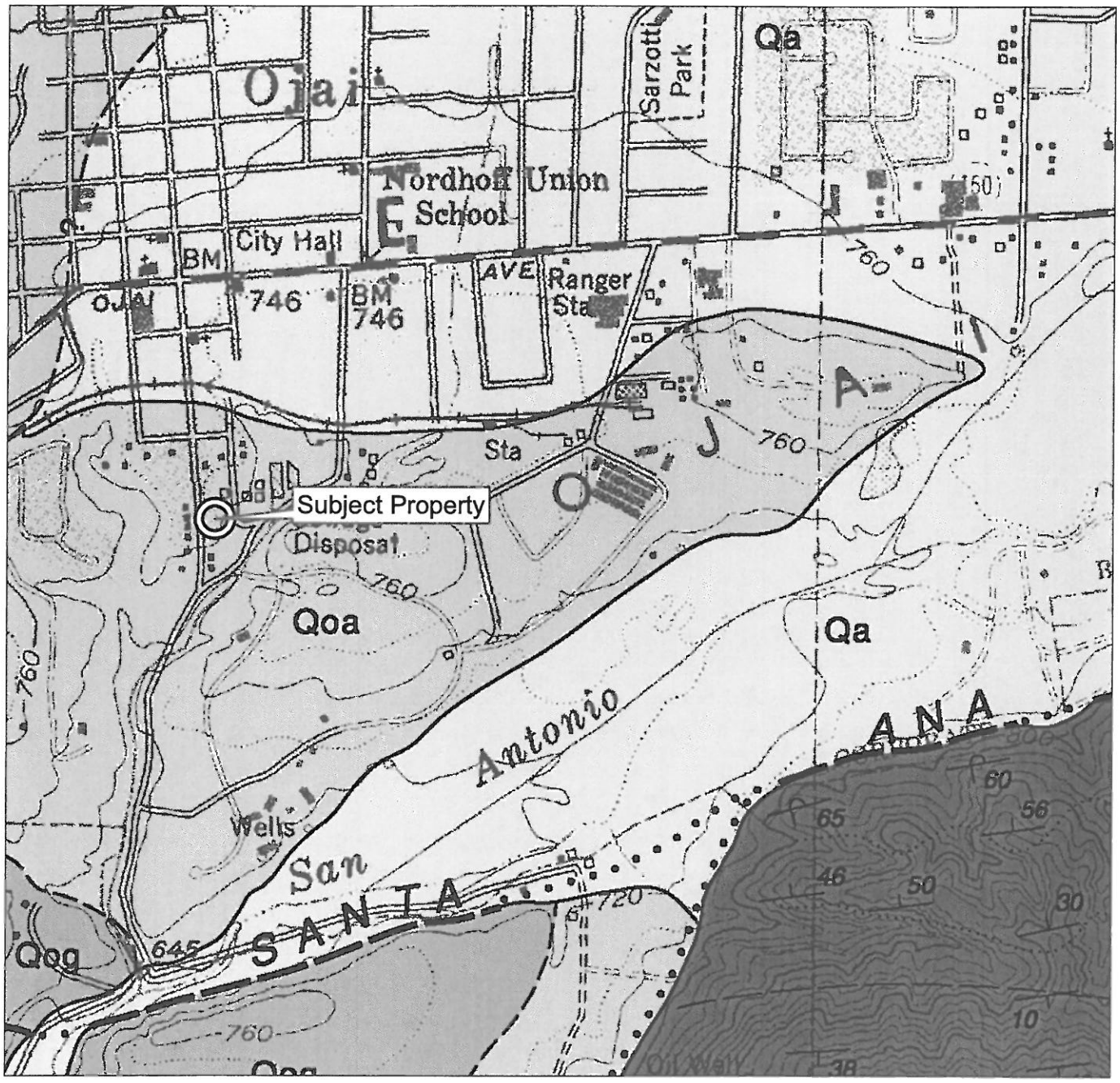
Subject: Vicinity Geologic Map 1 Reference: Dibblee, Ojai Quad. Scale: 1" = 1000'	Client: City of Ojai Job #: SS-502-S Date: 11/2024



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Vicinity Geologic Map 1

0 500 1,000 2,000 Feet

1 Inch = 1,000 Feet

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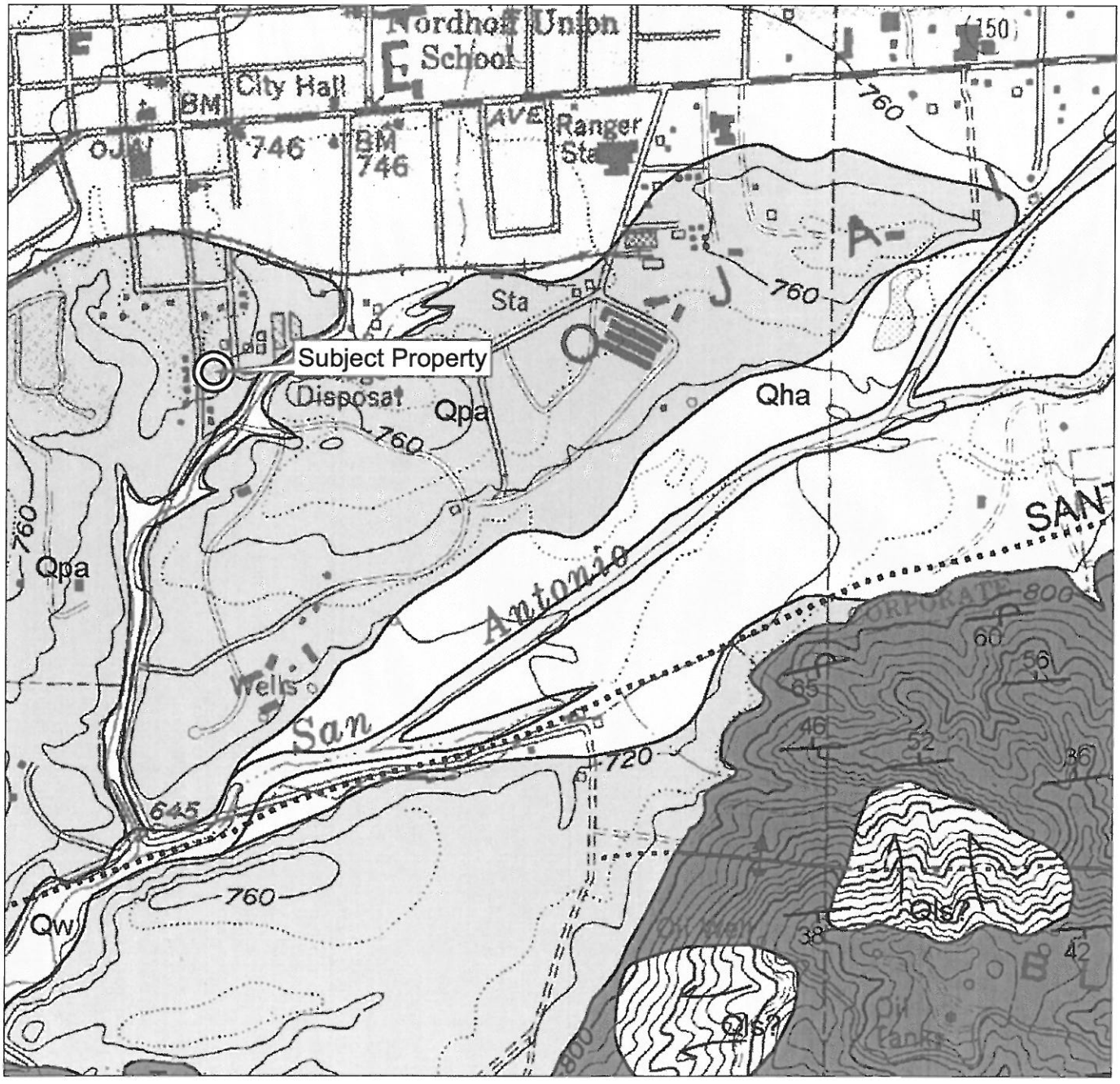
Subject: Vicinity Geologic Map 2 Reference: USGS, Ojai Quad. Scale: 1" = 1000'	Client: City of Ojai Job #: SS-502-S Date: 11/2024



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Vicinity Geologic Map 2

0 500 1,000 2,000 Feet

1 Inch = 1,000 Feet

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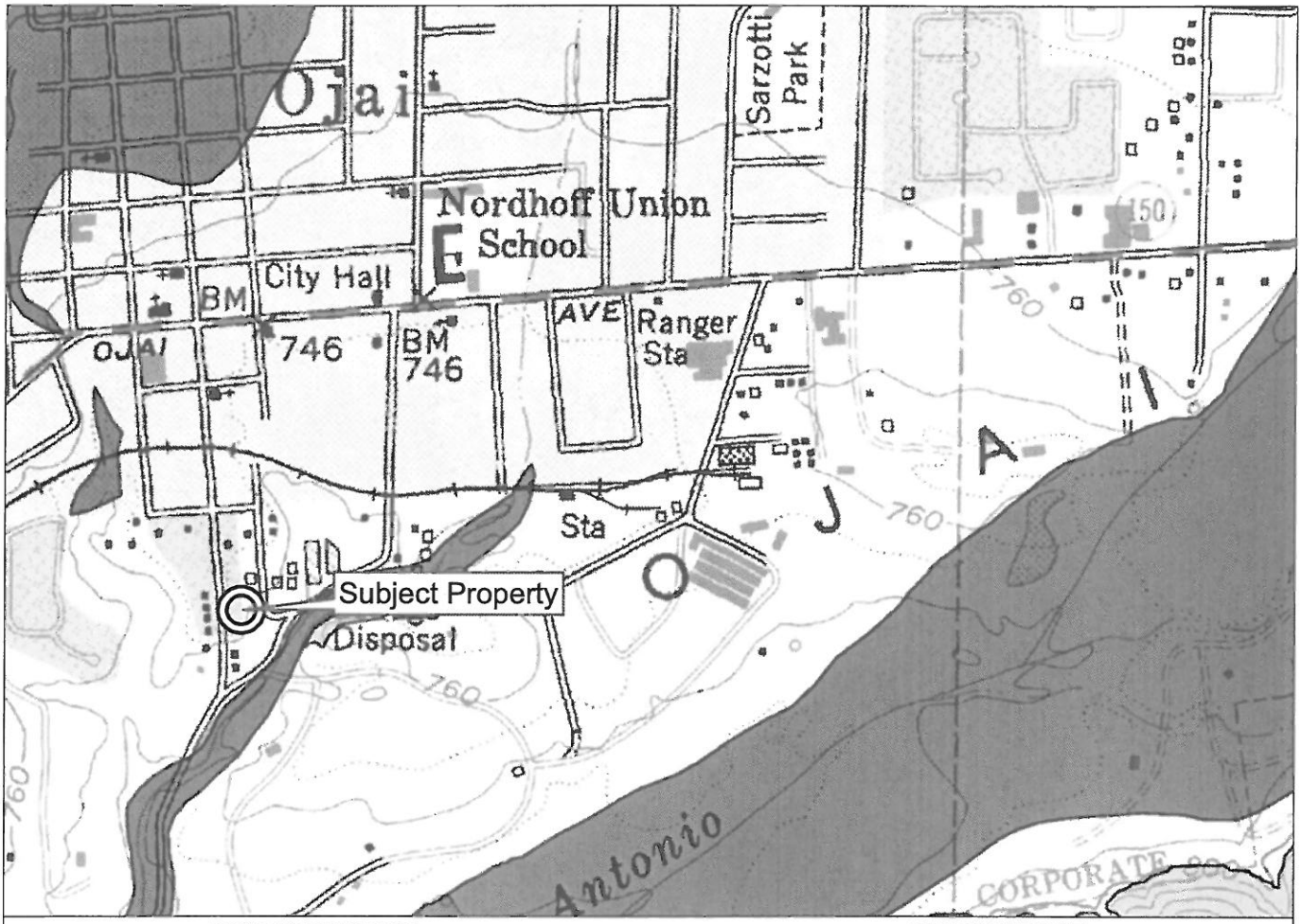
Subject: Seismic Hazard Zones Map Reference: California Geological Survey Scale: 1" = 1000'	Client: City of Ojai Job #: SS-502-S Date: 11/2024



EARTHQUAKE FAULT ZONES

Earthquake Fault Zones
Zone boundaries are delineated by straight-line segments; the boundaries define the zone encompassing active faults that constitute a potential hazard to structures from surface faulting or fault creep such that avoidance as described in Public Resources Code Section 2621.5(a) would be required.

Active Fault Traces
Faults considered to have been active during Holocene time and to have potential for surface rupture: Solid Line in Black or Red where Accurately Located; Long Dash in Black or Solid Line in Purple where Approximately Located; Short Dash in Black or Solid Line in Orange where Inferred; Dotted Line in Black or Solid Line in Rose where Concealed; Query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake-associated event or C for displacement caused by fault creep.

SEISMIC HAZARD ZONES

Liquefaction Zones
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

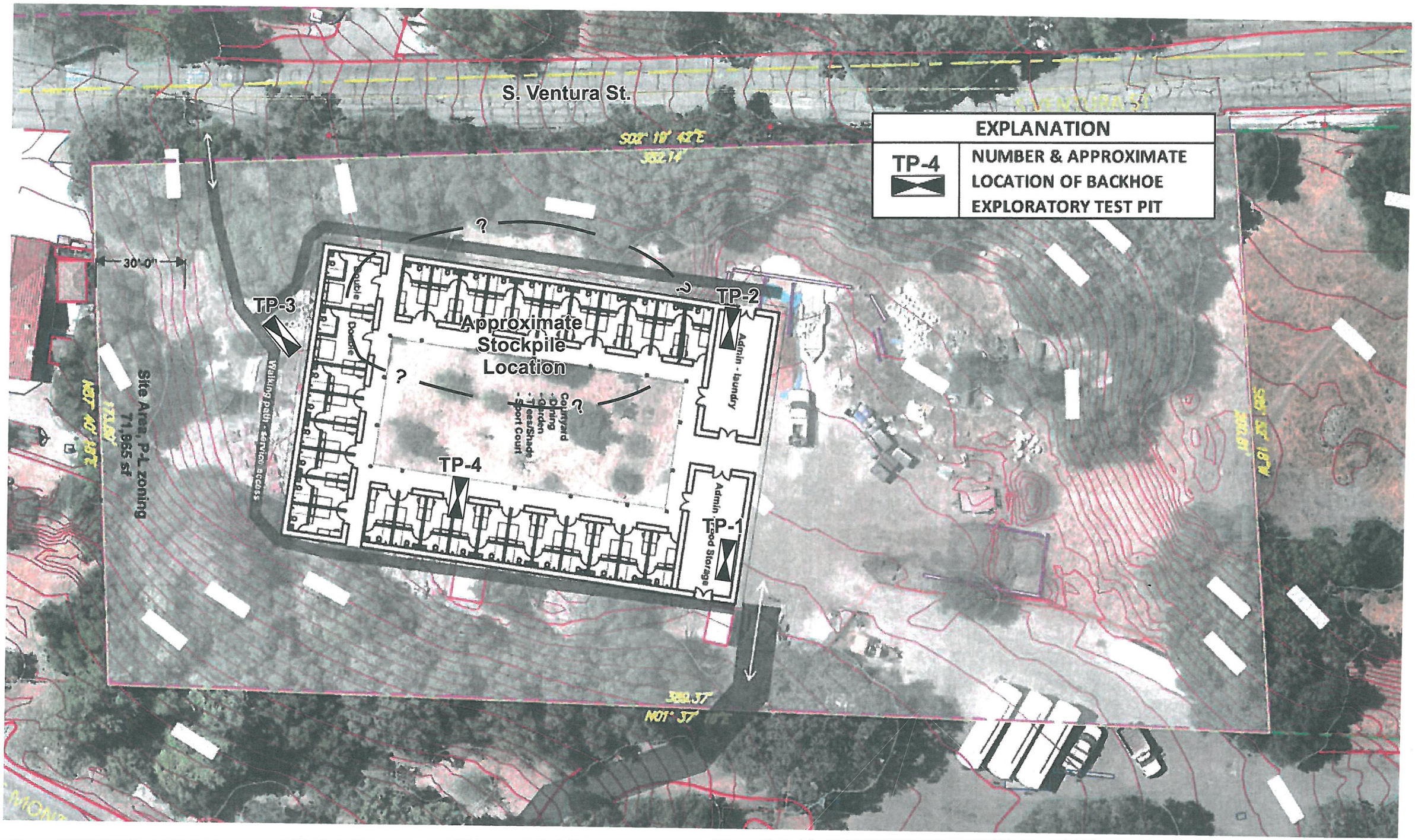
Earthquake-Induced Landslide Zones
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N

Seismic Hazard Zones Map

0 500 1,000 2,000 Feet

1 Inch = 1,000 Feet



Feet 0 30 60	Subject: Plot Plan Reference: Henry Land Surveying, Inc. Scale: 1 Inch = 30 Feet	Client: City of Ojai Job #: SS-502-S Date: 11/2024	SOLID Soils & Geologic Consultants solidsoils.com; (805) 202-6533	APN: 023012002 **Plot Plan**

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TEST PIT LOG

Job # : SS-502-S	Test Pit # : TP-1
Client: City of Ojai	Date Excavated: 10/23/24
Address: S. Ventura St., Ojai	Logged By: JS

DEPTH (ft)	DESCRIPTION
0 - 3	ARTIFICIAL FILL (af): 0 - 2': Sandy CLAY with Gravel; medium brown, dry, stiff, abundant roots, some pinhole voids, gravel up to 1" across, trace cobbles up to 3" across. 2 - 2½': SILT; red, slightly moist, stiff. 2½ - 3': Sandy CLAY; dark brown, slightly moist, stiff, some: roots, gravel, asphalt pieces, and pinhole voids.
3 - 5½	OLDER ALLUVIUM (Qoal): Sandy SILT; tan, slightly moist, stiff, trace roots and gravel, sand is very fine grained. Total Depth: 5½'. No Water. No Caving. Fill to 3'.

PLATE TP-1

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TEST PIT LOG

Job # : SS-502-S	Test Pit # : TP-2
Client: City of Ojai	Date Excavated: 10/23/24
Address: S. Ventura St., Ojai	Logged By: JS

DEPTH (ft)	DESCRIPTION
0 - 1	ARTIFICIAL FILL (af): Sandy CLAY; dark brown, slightly moist, stiff, pipe at 1'.
1 - 5½	OLDER ALLUVIUM (Qoal): Silty SAND; very fine grained, reddish medium brown, moist, medium dense to dense at 5', trace gravel, some sandy silt zones.
	Total Depth: 5½'. No Water. No Caving. Fill to 1'.

PLATE TP-2

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TEST PIT LOG

Job # : SS-502-S	Test Pit # : TP-3
Client: City of Ojai	Date Excavated: 10/23/24
Address: S. Ventura St., Ojai	Logged By: JS

DEPTH (ft)	DESCRIPTION
0 - 5	ARTIFICIAL FILL (af): Silty SAND with Clay, Gravel, and Cobbles; medium brown and dark brown, medium dense, considerable asphalt, concrete, and brick pieces, cobbles are up to 5" across, trace roots, and trace boulders up to 1½' across.
5 - 6	OLDER ALLUVIUM (Qoal): Silty SAND; very fine grained, reddish medium brown, slightly moist to moist, dense, trace gravel, some sandy silt zones.
	Total Depth: 6'. No Water. No Caving. Fill to 5'.

PLATE TP-3

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TEST PIT LOG

Job # : SS-502-S	Test Pit # : TP-4
Client: City of Ojai	Date Excavated: 10/23/24
Address: S. Ventura St., Ojai	Logged By: JS

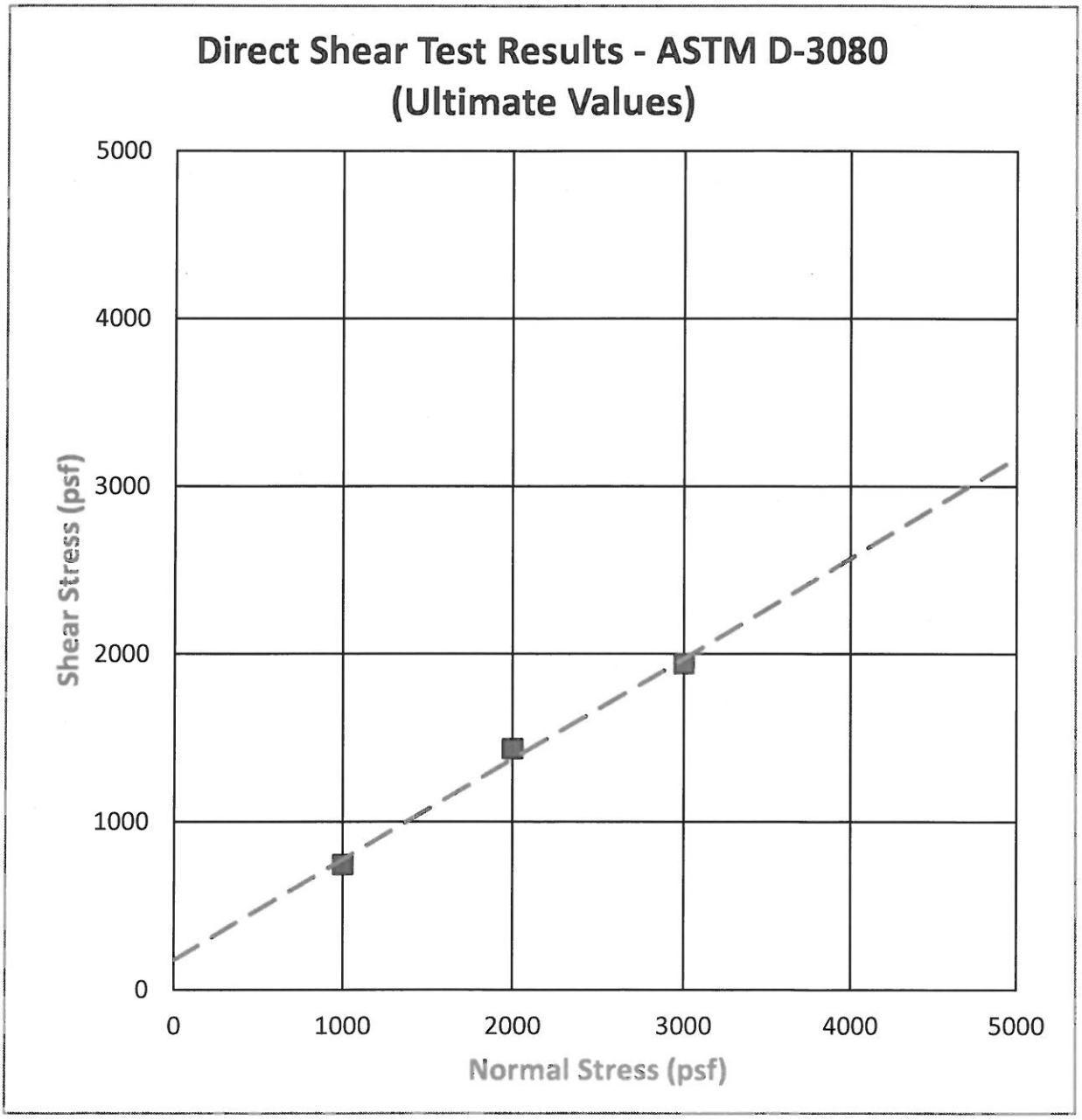
DEPTH (ft)	DESCRIPTION
0 - 5½	ARTIFICIAL FILL (af): Silty SAND with Clay, Gravel, Cobbles, and Boulders; medium to dark brown, slightly moist, medium dense, abundant pinhole voids and trash (pipes, concrete, asphalt, manhole cover, etc.), some roots, boulders are up to 2' across.
5½ - 6½	OLDER ALLUVIUM (Qoal): Silty SAND; very fine grained, reddish medium brown, slightly moist to moist, dense, trace gravel, some sandy silt zones.
	Total Depth: 6½'. No Water. No Caving. Fill to 5½'.

PLATE TP-4

SOLID
Soils & Geologic Consultants
solidsoils.com; (805) 202-6533

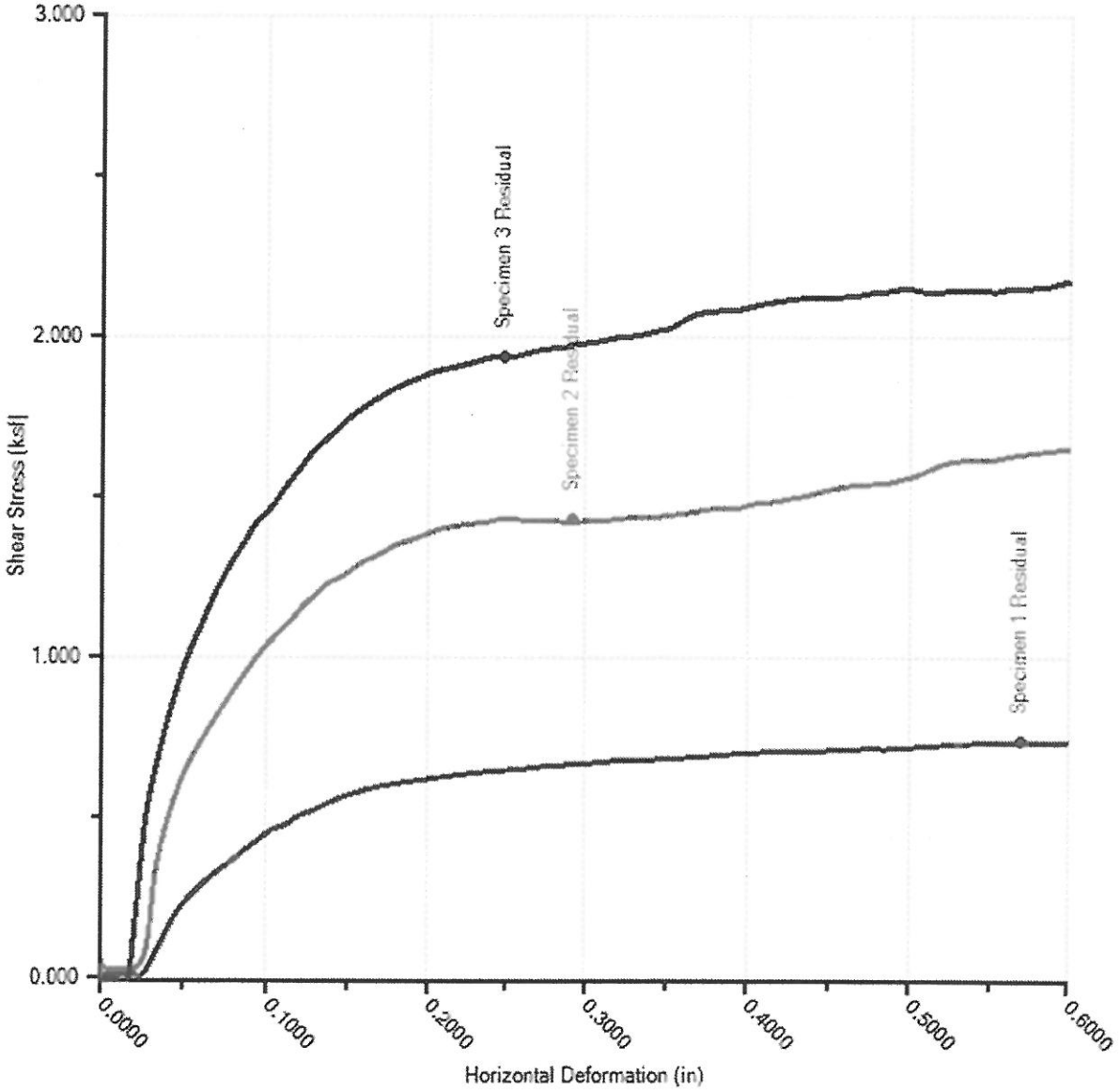
Job Number: SS-502-S
Client: City of Ojai
Sample Location: Bulk Composite @ 0-5'
Earth Material: Remolded Silty Sand with Clay

Cohesion: 177.3 (psf)
Phi Angle: 30.9°
Shear Rate: 0.025 in/min



SHEAR DIAGRAM S-1

SS-502-S City of Ojai Remolded Shear.HSDN - DS Test

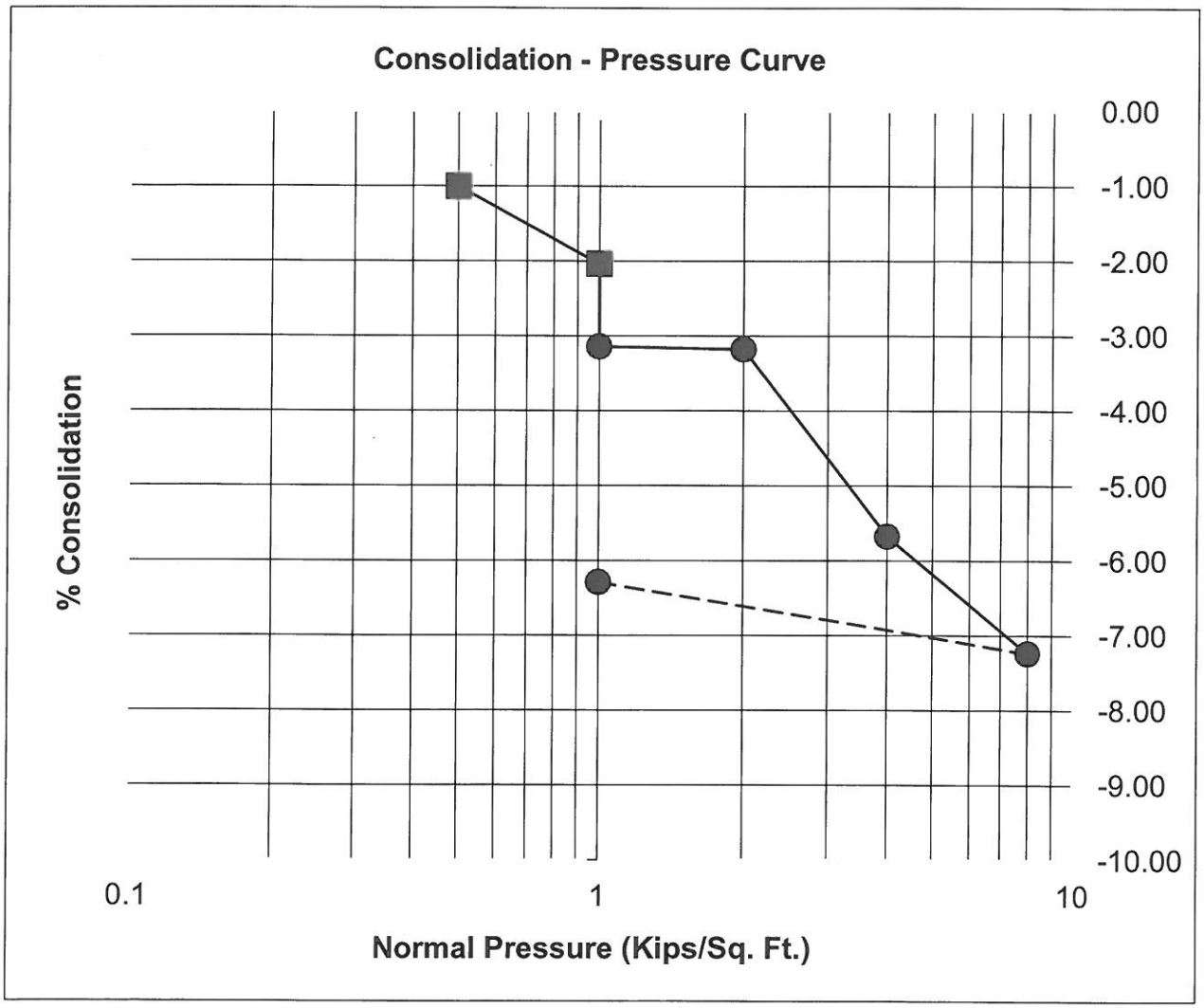


Consolidation Test Results

Job: SS-502-S
Test by: KM
Test Pit or Boring: TP-1

Client: City of Ojai
Checked by: JS
Depth: 5'

Date: 10/29/24
Subject: Consolidation Diagram
Material: Sandy Silt



■ = Field Moisture ● = Sample Flooded

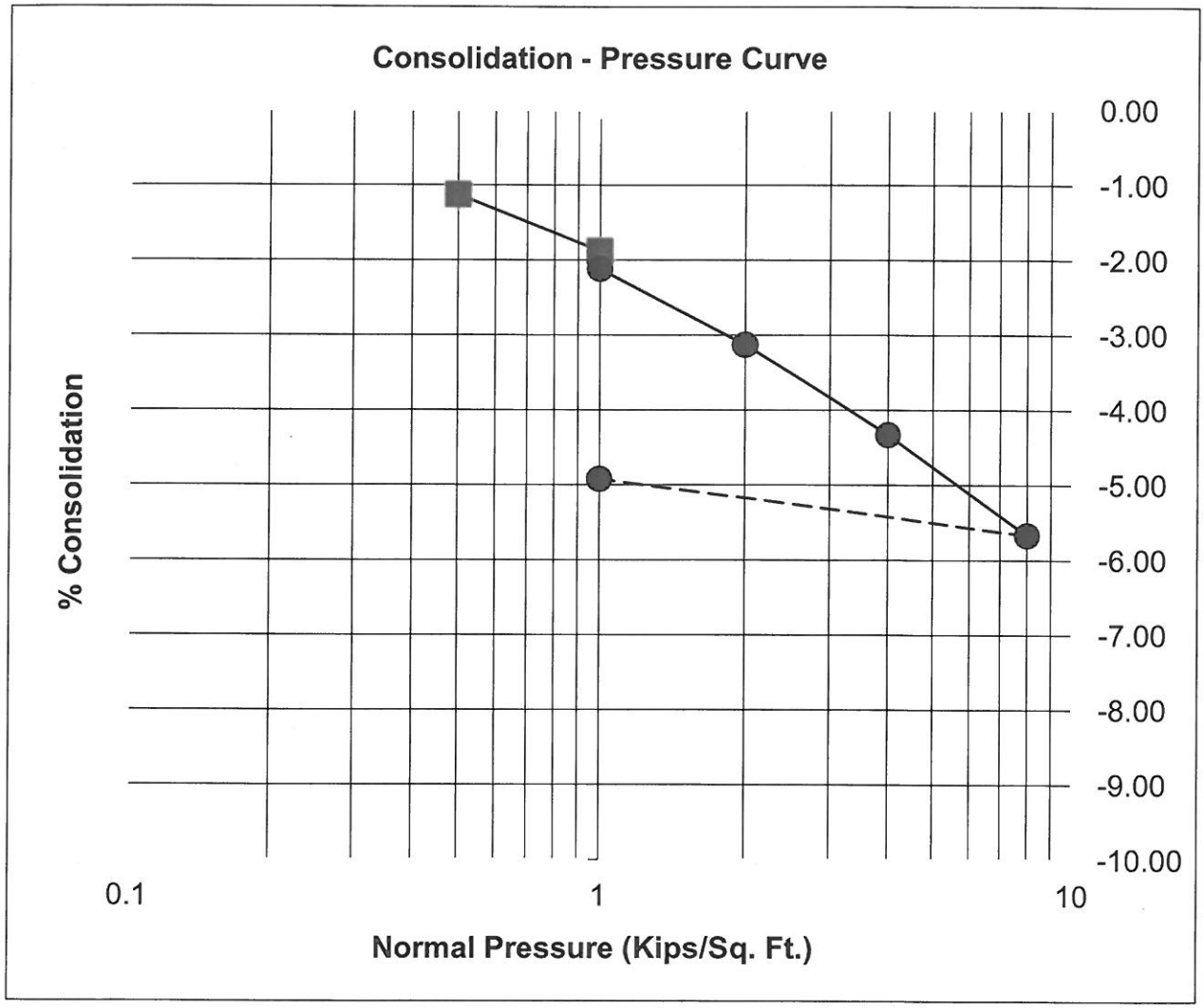
Plate: C-1

Consolidation Test Results

Job: SS-502-S
Test by: KM
Test Pit or Boring: TP-2

Client: City of Ojai
Checked by: JS
Depth: 5'

Date: 10/29/24
Subject: Consolidation Diagram
Material: Silty Sand



■ = Field Moisture ● = Sample Flooded

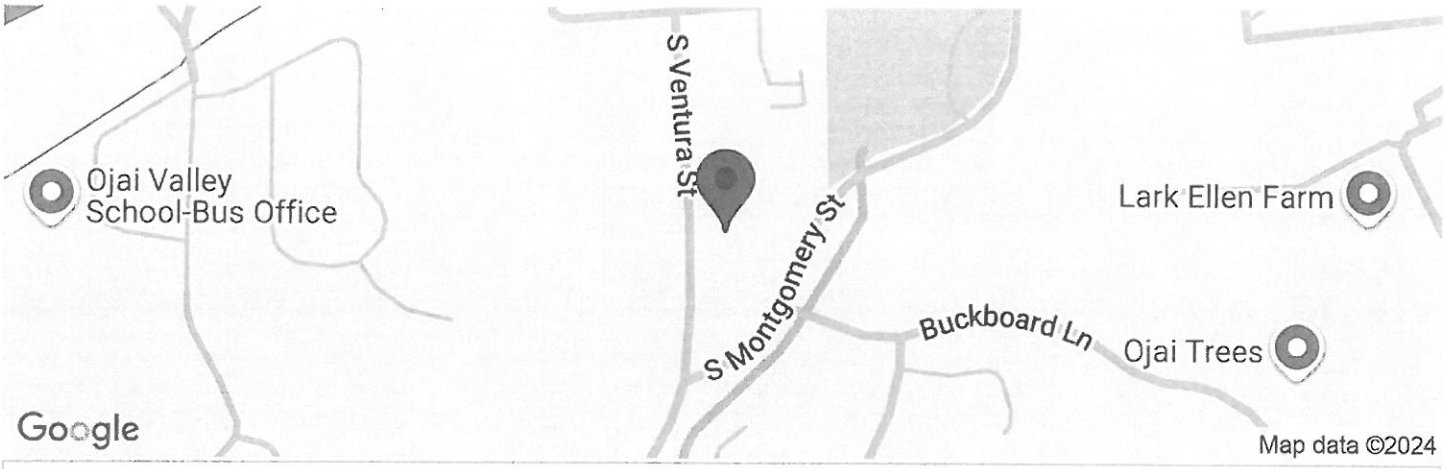
Plate: C-2

USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

OSHPD

SS-502-S

Latitude, Longitude: 34.44307, -119.24629



Date	9/24/2024, 2:40:10 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	1.849	MCE_R ground motion. (for 0.2 second period)
S_1	0.702	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.219	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.479	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.809	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.971	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.849	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.07	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.304	Factored deterministic acceleration value. (0.2 second)
S1RT	0.702	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.788	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.809	Factored deterministic acceleration value. (1.0 second)
PGAd	0.952	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	0.809	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration

Type	Value	Description
C_{RS}	0.893	Mapped value of the risk coefficient at short periods
C_{R1}	0.891	Mapped value of the risk coefficient at a period of 1 s
C_V	1.47	Vertical coefficient